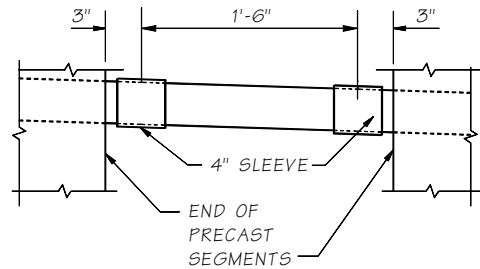
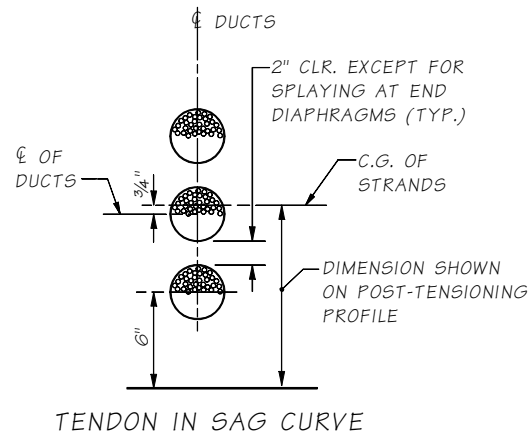


PRECAST LONGITUDINAL HALF-SECTION

SHOWING POST-TENSIONING CABLE PATHS
* MEASURED BEFORE POST-TENSIONING.
** CONTRACTOR MAY ELECT TO CAST THE GIRDER IN ONE PIECE
IF THE SHIPPING WEIGHT IS LESS THAN 200 KIPS & THE SHIPPING
ROUTE ALLOWS THE SHIPMENT OF LONG GIRDERS.

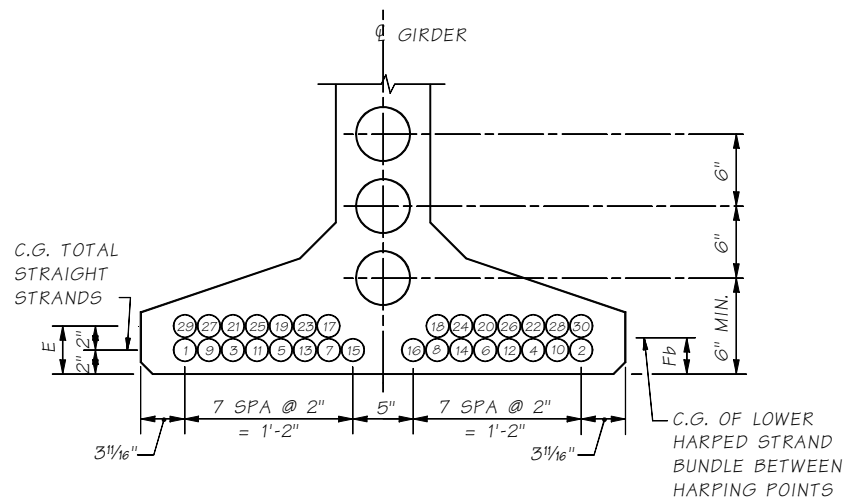
POST-TENSIONING TABLE

SPAN	GIRDER	MIN. CONC. COMPRESIVE STRENGTH, KSI		NUMBER OF STRANDS	PRESTRESSING LOAD KIPS		PRESTRESS LOSS KSI	E ₁ (IN.)	E ₂ (IN.)	E ₃ (IN.)
		GIRDER	WET JOINT		JACKING	AFTER SEATING				



STRAND LOCATION DETAIL

DUCT SPLICE DETAIL



STRAND PATTERN AT 1/2 SPAN

STRAIGHT STRAND LOCATION SEQUENCE
SHALL BE AS SHOWN (1), (2) ETC.

POST-TENSIONING NOTES

1. THE CAST-IN-PLACE CONCRETE IN DECK SLAB SHALL BE CLASS 4000D. THE MINIMUM COMPRESSIVE STRENGTH OF THE CAST-IN-PLACE CONCRETE AT THE WET JOINT AT THE TIME OF POST-TENSIONING SHALL BE ??? ksi.
2. THE MINIMUM PRESTRESSING LOAD AFTER SEATING AND THE MINIMUM NUMBER OF PRESTRESSING STRANDS FOR EACH GIRDER SHALL BE AS SHOWN IN POST-TENSIONING TABLE.
3. THE DESIGN IS BASED ON ?? INCH DIAMETER LOW RELAXATION STRANDS WITH A JACKING LOAD FOR EACH GIRDER AS SHOWN IN POST-TENSIONING TABLE, AN ANCHOR SET OF 3/8 INCH OF CURVATURE FRICTION COEFFICIENT, $\mu = 0.20$ AND A WOBBLE FRICTION COEFFICIENT, $k = 0.0002/\text{ft}$. THE ACTUAL ANCHOR SET USED BY THE CONTRACTOR SHALL BE SPECIFIED IN THE SHOP PLANS AND INCLUDED IN THE TRANSFER FORCE CALCULATIONS.
4. THE DESIGN IS BASED ON THE ESTIMATED PRESTRESS LOSS OF POST-TENSIONING STRANDS SHOWN IN POST-TENSIONING TABLE DUE TO STEEL RELAXATION, ELASTIC SHORTENING CREEP AND SHRINKAGE OF CONCRETE.
5. THE CONTRACTOR SHALL SUBMIT THE STRESSING SEQUENCE AND ELONGATION CALCULATIONS TO THE ENGINEER FOR APPROVAL. ALL LOSSES DUE TO TENDON VERTICAL AND HORIZONTAL CURVATURE MUST BE INCLUDED IN ELONGATION CALCULATIONS.
 - A. THE PRESTRESSING FORCE SHALL BE DISTRIBUTED WITH AN APPROXIMATELY EQUAL AMOUNT IN EACH WEB.
 - B. NO MORE THAN ONE-HALF OF THE PRESTRESSING FORCE IN ANY WEB MAY BE STRESSED BEFORE AN EQUAL FORCE IS STRESSED IN THE ADJACENT WEBS.
6. THE MAXIMUM OUTSIDE DIAMETER OF THE DUCT SHALL BE ??? INCHES. THE AREA OF THE DUCT SHALL BE AT LEAST 2.5 TIMES THE NET AREA OF THE PRESTRESSING STEEL IN THE DUCT.
7. ALL TENDONS SHALL BE STRESSED FROM PIER ??.

Bridge Design Engr.	M:\STANDARDS\Girders\PT Wide Flange\W83PTG1.man	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor		10	WASH.			
Designed By		JOB NUMBER				
Checked By						
Detailed By						
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist	DATE	REVISION	BY	APPD		

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BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

STANDARD
PRESTRESSED CONCRETE GIRDERS

W83PTG SPliced GIRDER
DETAILS 1 OF 5

BRIDGE
SHEET
NO.

SHEET

OF

SHEETS

5.9-A2-1

SR JOB NO. SHEET